

# PATENT ABSTRACTS OF JAPAN

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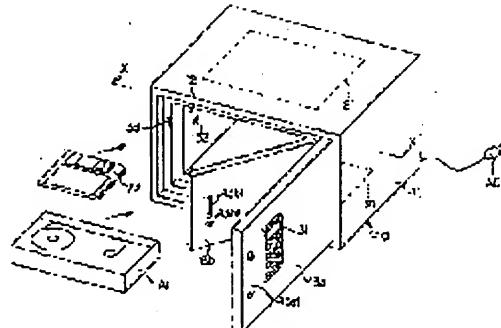
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## (54) HOUSING DEVICE FOR MAGNETIC RECORDING ARTICLE

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent a leakage incidence of magnetically recorded data to the outsider from occurring by a method wherein this housing device is equipped with a battery which is float-charged from a commercial power source, and a timer which outputs a time-up signal when a specified period of time has passed since a locking of the door, and a demagnetizer is operated by the time-up signal.

SOLUTION: This housing device for magnetic recording articles A1, A2 such as a floppy disk, a magnetic tape, an IC package, is constituted of a housing case 10, and demagnetizers 21, 21 which are included in the housing case 10. The demagnetizers 21, 21 which are constituted by installing a coil in an iron core member, are arranged in a manner to be vertically confronted between external and internal cases 11, 12. Then, the demagnetizers 21, 21 are energization controlled by a control device comprising a monitor-control unit, a battery or the like. That is, when a time-up signal at the time when a specified period of time, e.g. several months, has passed since an input of an operation signal which shows the locking, is input, an alarming device is operated, and at the same time, an oscillating current is fed to the demagnetizer 21, and the recorded data of the magnetic recording articles A1, A2 is magnetically demagnetized.



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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the receipt equipment of the magnetic-recording supply with which the record data of magnetic-recording supplies, such as a floppy disk under storage and a magnetic tape, can prevent revealing to an outsider.

[0002]

[Description of the Prior Art] As for magnetic-recording supplies, such as a floppy disk, a magnetic tape, and an IC package, it is desirable to keep it in the safe for theft-proof for insurance.

[0003] The conventional safe attaches the door which can be locked to the body of a safe, and is constituted, and a door can lock open impossible with a dial lock. Then, this thing can take out a magnetic-recording supply by containing a magnetic-recording supply inside, being able to keep a magnetic-recording supply and releasing locking of a door by locking a door.

[0004]

[Problem(s) to be Solved by the Invention] When based on this conventional technique, since the door was locked and the magnetic-recording supply was only kept, the safe had the problem that the record data currently recorded on the magnetic-recording supply might be revealed to an outsider, when the magnetic-recording supply under storage was stolen by emergency destructive activities etc.

[0005] Then, the object of this invention is by building into a receipt case the magnetic eraser which operates at the time of abnormalities in view of the problem of this conventional technique to offer the receipt equipment of the magnetic-recording supply with which the record data of a magnetic-recording supply can prevent revealing to an outsider also in case of the emergency situation.

[0006]

[Means for Solving the Problem] Let it be that summary for the configuration of this invention for attaining this object to come to have the receipt case where it has the door which can be locked, and the magnetic eraser built into a receipt case, and for a magnetic eraser to operate at the time of the abnormalities of a receipt case.

[0007] In addition, a magnetic eraser can counter and arrange 2 sets and energization control can be carried out through a supervisory-control unit with a sensor.

[0008] Moreover, a door can be made into double-entry doors.

[0009] Furthermore, you may also build a turntable into a receipt case.

[0010]

[Function] When based on the configuration of this invention, by a receipt case's containing a magnetic-recording supply, and closing a door and locking it, a magnetic-recording supply can be kept safely, and by operating at the time of abnormalities, such as destructive activities, a magnetic eraser generates the magnetic flux for demagnetization, and can eliminate magnetically the record data of the magnetic-recording supply under storage in a receipt case.

[0011] When arranging 2 sets of magnetic erasers face to face, by making mutually into hard flow the polarity of the oscillating current energized in each coil, a magnetic eraser can generate the magnetic

flux of the direction attracted mutually, increases the demagnetization force over the magnetic-recording supply within a receipt case, and can eliminate record data much more thoroughly.

[0012] When carrying out energization control of the magnetic eraser through a supervisory-control unit with a sensor, if the storage situation of a receipt case can be continuously monitored through a sensor and the destructive activities to a receipt case occur, a supervisory-control unit can detect that promptly, can make a magnetic eraser able to energize, and can eliminate the record data of a magnetic-recording supply. In addition, the photosensor which detects the internal illuminance of a receipt case can be used so that it can detect that the hole was opened in the receipt case, for example by destructive activities as a sensor at this time, and also the acceleration sensor which detects the drop impact of the proximity sensor which detects that the door was opened without the procedure of normal from the exterior, a limit switch, and a receipt case can be used.

[0013] The door of double-entry doors can lengthen time amount required for opening it, and can fully secure a degauss period required in order to demagnetize a magnetic-recording supply.

[0014] If a turntable is built into a receipt case, even if a turntable rotates a magnetic-recording supply, passes a magnetic-eraser top and miniaturizes a magnetic eraser, it can eliminate record data certainly.

[0015]

[Embodiment of the Invention] the following and a drawing -- with -- \*\*\*\* -- the gestalt of implementation of invention is explained.

[0016] The receipt equipment of a magnetic-recording supply becomes considering the receipt case 10 and the magnetic erasers 21 and 21 built into the receipt case 10 as a primary member (drawing\_1, drawing\_2).

[0017] The receipt case 10 carries out the inner package of the inner case 12 to the outside case 11, and is constituted. The outside case 11 is formed in box-like [ of front disconnection / strong ] of the iron plate etc., and heat insulator 11a covers the whole surface, and it is attached to the inner surface. Moreover, in the outside case 11, it is a handle 13a1. Door 13a of a with is attached. The inner case 12 is formed from the synthetic-resin ingredient of non-magnetic material etc., and door 13b is attached. It handles to a door-end side and door 13b is the hole 13b1 of business. It is formed and is the cylinder lock 13b2 for locking. It is incorporated. Then, Doors 13a and 13b form the double-entry doors of the receipt case 10. Moreover, the receipt case 10 is the magnetic-recording supplies A1, such as a cassette tape, a video tape, and a floppy disk, and A2. It contains and they are closing and cylinder lock 13b2 about door 13b. It is the magnetic-recording supply A1 and A2 by minding, locking door 13b, closing door 13a and locking it. It can be kept safely.

[0018] Between the outside case 11 and the inner case 12, magnetic erasers 21 and 21 counter up and down, and are arranged. Magnetic erasers 21 and 21 include coil 21a in iron core material 21b, and are formed in it, respectively.

[0019] Energization control of the magnetic erasers 21 and 21 is carried out through the supervisory-control unit 41 and the actuation unit 42 (drawing\_1, drawing\_3). The actuation unit 31 and sensors 32 and 33 are attached to the supervisory-control unit 41. In addition, the actuation unit 31 has a ten key for entering a password, and is attached to the outside surface of door 13a. A sensor 32 can be built into the receipt case 10, can detect the internal illuminance of the inner case 12, can build a sensor 33 into the receipt case 10, and can detect the open condition of door 13a.

[0020] The supervisory-control unit 41 is equipped with control means 41a, distinction means 41b, and timer 41c. In control means 41a, it is the password D1 from the actuation unit 31. It is inputted, and it is connected to distinction means 41b while multipoint connection of the output of control means 41a is carried out to the lock device 43 and timer 41c. Moreover, the output of timer 41c is connected to distinction means 41b. Detecting-signal S3a from sensors 32 and 33 and S3b are inputted into distinction means 41b according to the individual, and multipoint connection of the output of distinction means 41b is carried out to driving means 42b of an alarm 44 and the actuation unit 42. It connects with a source power supply through a plug socket AC, and charge-and-discharge controller 42a of the actuation unit 42 is connected to Dc-battery B. Moreover, it connects with distinction means 41b, and also the output of charge-and-discharge controller 42a is connected to magnetic erasers 21 and 21

through driving means 42b.

[0021] Control means 41a is the password D1 of the actuation unit 31 to normal. If inputted, active signal S1a can be outputted to the lock device 43 included in door 13a, and release and control signal S1b which shows normal actuation of the actuation unit 31 at this time can be outputted for door 13a to distinction means 41b by the ability locking. Moreover, control means 41a is the password D1 of the actuation unit 31 to normal. It is not inputted, for example, is the inaccurate password D1. If repeatedly inputted exceeding the count of predetermined, while restraining door 13a to open impossible through the lock device 43, control signal S1b which shows an operation mistake can be outputted to distinction means 41b.

[0022] On the other hand, by inputting active signal S1a which shows locking of control means 41a to door 13a, timer 41c starts actuation and suspends actuation by active signal S1a which shows the release of door 13a. Then, timer 41c is the deadline signal S2, when predetermined periods, such as several months, pass since the input of active signal S1a which shows locking. It can output to distinction means 41b.

[0023] Distinction means 41b is the deadline signal S2 from detecting-signal S3a from a sensor 32, detecting-signal S3b from a sensor 33, control signal S1b that shows the operation mistake from control means 41a, and timer 41c. It is based on either and is alarm S4. It outputs to the actuation unit 42 and an alarm 44. However, only the predetermined time amount required for closing Doors 13a and 13b makes an invalid detecting-signal S3a from sensors 32 and 33, and S3b, and distinction means 41b is the magnetic-recording supply A1 and A2, when control signal S1b which shows the normal actuation from control means 41a is inputted. Normal taking-out close actuation is faced and it is alarm S4. It does not output.

[0024] Moreover, distinction means 41b is monitoring the charge condition of Dc-battery B continuously through charge-and-discharge controller 42a. Then, when the charge of Dc-battery B becomes below predetermined level, distinction means 41b judges that the receipt case 10 is carried out outside and it is left, and is alarm S4. It can output.

[0025] Charge-and-discharge controller 42a is always carrying out floating charge of the dc-battery B by the source power supply which supplies electric power through a plug socket AC. Moreover, alarm S4 from distinction means 41b If it generates, driving means 42b operates magnetic erasers 21 and 21 using the power from charge-and-discharge controller 42a, and an alarm 44 generates an alarm tone and it can carry out an alarm display outside.

[0026] First, the oscillating current decreased to the lower magnetic eraser 21 is supplied (drawing 4 (A)), it continues, and the oscillating current decreased to the upside magnetic eraser 21 is supplied (this drawing (B)), and, as for driving means 42b, a polarity supplies after that the oscillating current which reverse decreases mutually to the up-and-down magnetic erasers 21 and 21 (this drawing (C)). At this time, magnetic erasers 21 and 21 are the magnetic flux phi 1 for demagnetization, phi 2, and phi 3, respectively. It is made to generate in the receipt case 10, and is the magnetic-recording supply A1 within the receipt case 10, and A2. Record data are magnetically eliminable.

[0027] In the above explanation, the supervisory-control unit 41 and the actuation unit 42 can be used as a control unit 40 with Dc-battery B, and can be built into space 10a formed between the outside case 11 and the inner case 12 (drawing 2). However, a control unit 40 may be divided and contained to the space 10a and 10a on either side irrespective of this drawing.

[0028]

[The gestalt of other operations] You may also build a turntable 14 into the receipt case 10 (drawing 5, drawing 6). However, drawing 5 (B) is the Y-Y line view equivalent sectional view of this drawing (A).

[0029] The turntable 14 is built into the inner case 12 free [ a revolution ] through shaft 14a. Shaft 14a is set up free [ a revolution ] through the bearing 14b and 14b with which the receipt case 12 equips up and down, and is connected with motor 14e through Gears 14c and 14d. In addition, the control device 40 is built into the receipt case 10, and the small magnetic eraser 21 is arranged by the pars basilaris ossis occipitalis of the inner case 12 in space 12a of the lower part of a turntable 14. However, a magnetic

eraser 21 includes coil 21a in iron core material 21b, and is formed in it.

[0030] Shaft 14a is equipped with 14f of pressure plates possible [rise and fall] ( drawing 5 (A), drawing 6 ). 14f of pressure plates is 1 and 14f1 14f of division pieces which are formed in disc-like [the / as a turntable 14 / same], and fit into a center section in a from cartridge at the peripheral face of a shaft 14. -- is formed. in addition -- each -- division piece 14f1 \*\*\*\* -- rib 14f2 of the inside [engaging with the engagement slot 14a1 of the front face of shaft 14a] sense It is formed in the vertical direction, therefore 14f of pressure plates can be moved and fixed to the height location of arbitration along with shaft 14a (the continuous line of drawing 5 (B), two-dot chain line).

[0031] A turntable 14 is the magnetic-recording supply A1 which is made to rotate through motor 14e and is put on a top face when operating a magnetic eraser 21 and which is not illustrated, and A2. It can be made to be able to pass on a magnetic eraser 21, and can demagnetize. Moreover, 14f of pressure plates is the magnetic-recording supply A1 on a turntable 14, and A2. It holds down and is the magnetic-recording supply A1 and A2. Migration can be prevented. In addition, division piece 14f1 and 14f1 Rib 14f2 formed in --, and 14f2 --, the engagement slot 14a1 formed in shaft 14a, and 14a1 -- forms the former in shaft 14a, and is the latter 14f of division pieces 1 and 14f1 You may form in --.

[0032]

[Effect of the Invention] As explained above, since a magnetic eraser can operate by building a magnetic eraser into a receipt case at the time of the abnormalities of the receipt case which encounters destructive activities etc. and the record data of the magnetic-recording supply under storage can be eliminated, according to this invention, there is outstanding effectiveness that record data can prevent certainly the situation carelessly revealed to an outsider.

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[Translation done.]